### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 82.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018272 Address: 333 Burma Road **Date Inspected:** 19-Nov-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Westmont Industries **Location:** Santa Fe Springs, CA.

Ruben Dominguez **CWI Name: CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component: Travelers** 

### **Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding, QC inspection and non-destructive testing of the Travelers. Upon the arrival of the QA Inspector, the following observations were made:

#### Traveler Test Rack

On this date, the QA Inspector observed WMI production personnel performing fitting, welding and cutting activities on various assemblies for the Traveler Test Rack.

#### **SAS-EB** Traveler

#### Fixed Stairs Section

On this date, the QA Inspector observed Westmont Industries (WMI) production welder, Mr. Jose Rodriguez (WID # 3031), continuing to perform Flux Core Arc Welding (FCAW) activities on the previously fit Frame assemblies, identified as 10-A237, 11-B237, 3-A217, 4-A218, 5-A223 and 6-A224. The QA Inspector observed throughout the shift, that the FCAW was being performed in various positions, on the connector plate and Tube Steel (TS) material fillet and flare groove welds.

#### Lower Truss Section

On this date, the QA Inspector observed Westmont Industries (WMI) production welder, Mr. Eutimo Lopez (WID # 3035), continuing to perform Flux Core Arc Welding (FCAW) activities on the previously fit Frame assemblies, identified as 12-A240, 13-B240, 7-A225, 8-A226 and 9-A230. The QA Inspector observed throughout the shift, that the FCAW was being performed in various positions, on the connector plate and Tube Steel (TS) material

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fillet and flare groove welds.

See attached picture below.

The QA Inspector observed WMI production personnel Mr. Raymundo Anaya (WID # 3196) and Mr. Cesar Canales performing fitting and Flux Core Arc welding (FCAW) activities on the Elevating Platform, for the Lower Truss Section. The QA Inspector observed that the fitting and tacking activities were being performed on the Stair Risers, piece marks identified as C270F, to Stair Supports, piece marks identified as A270F and B270F. The QA Inspector observed that the fitting and tacking activities were also being performed on what appeared to be various plate material fillet and flare groove welds.

### E2/E3-EB Traveler

On this date, the QA Inspector observed WMI production welder Mr. Juan Jimenez (WID # 3059), continuing to perform Flux Core Arc Welding (FCAW) welding activities on the intermediate and diagonal bracing Tube Steel (TS) material. The QA Inspector observed that the FCAW being performed by Mr. Jimenez appeared to be for the Frame Assembly identified as 9-A332 and 10-B332, per the shop drawings. The QA Inspector observed that the weld joints appeared to be designated as 6mm fillet and flush flare groove welds and that Mr. Jimenez was performing the FCAW in the flat (1G) and vertical (3F) positions, throughout the shift.

The QA Inspector randomly observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and fitting activities and QC Inspector Dominguez explained that approved Welding Procedure Specifications (WPS's) were being utilized. During random observation, the QA Inspector observed that the applicable WPS's and copies of the shop drawings, were located near each work station, where the above mentioned welding and fitting activities were being performed. The QA Inspector randomly verified that the consumable material, utilized during the welding appeared to be in compliance with the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. The QA Inspector randomly observed QC Inspector Dominguez verifying the in-process welding parameters, including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.





#### **Summary of Conversations:**

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On this date, the QA Inspector was informed by WMI production personnel Raymundo Anaya that previously completed welds will be cut out on the SAS-EB, Lower Truss Section Elevating Platform Assembly.

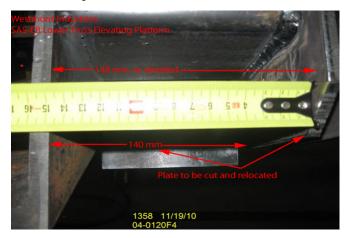
The QA Inspector then observed WMI Production Personnel, Mr. Eutimo Lopez utilizing the Carbon Arc Process to cut out the previously completed 5mm and 6mm fillet welds. The QA Inspector then referenced the nearby shop drawings and observed that the plate material being cut out appeared to be the Hinge Plate to Platform Balcony assembly plate material. The QA Inspector observed that the piece marks are identified as 257, 258, gy, ha and gz. Reference shop drawing WMI-SAS-270E, Detail 1/270B. The QA Inspector noted that the cutting had commenced, on the previously completed fillet welds, prior to the arrival of the QA Inspector.

During observation, the QA Inspector was informed by Mr. Anaya that the above mentioned fillet welds were being cut out due to the hinge plate assemblies being out of alignment with the Platform Balcony assemblies. Mr. Anaya further explained that the layout of the hinge plate assemblies had been previously performed in accordance to the Shop Drawings, but one of the dimensions on the drawings, had been detailed incorrectly. Mr. Anaya then explained that each of the hinge plate assemblies on both sides will be cut out and rewelded 8 mm further out each, to correctly line up with the Platform Balcony Assembly, hinge point.

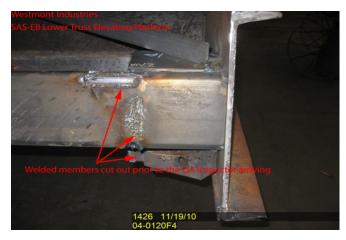
The QA Inspector noted that per AWS D1.1 Sect. 5.26.3 "The engineer shall be notified before welded members are cut apart" and at this time, the QA Inspector could not confirm that the engineer had been notified, prior to WMI personnel performing the above mentioned activities.

The QA Inspector then notified Structural Material Representative (SMR), Mr. Kit Guest, who then notified ABFJV WQCM of this issue.

See attached pictures below.







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# **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

| Inspected By: | Vance,Sean     | Quality Assurance Inspector |
|---------------|----------------|-----------------------------|
| Reviewed By:  | Edmondson,Fred | QA Reviewer                 |